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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,554	06/28/2001	Thomas Scholl	Mo-6427/LeA 34,702	5348
157 7590 01/29/2004 BAYER POLYMERS LLC 100 BAYER ROAD PITTSBURGH, PA 15205			EXAMINER SERGENT, RABON A	
			ART UNIT 1711	PAPER NUMBER
DATE MAILED: 01/29/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 09/894,554	Applicant(s) SCHOLL ET AL.
Examiner Rabon, Sergeant	Art Unit 1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte* Quayle, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 8-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 8-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet, 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet, 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-848)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No.(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No.(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(c), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-4 and 8-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Kitahara et al. ('306).

Patentees disclose the modification of a rubber by polymerizing diisocyanate with diamine in the presence of the rubber. Patentees disclose isocyanate to amine index ratios and quantities of polyurea utilized that meet those claimed by applicants, and patentees further

disclose that the rubber may be in the form of a solution. Additionally, patentees teach that the reaction product of the diisocyanate and diamine forms domains having a size of several hundred angstroms in the rubber; it is noted that these domains of several hundred angstroms fall within the claimed particle sizes. See abstract; column 1, lines 66+; and column 2, lines 1-9 and 18-32.

3. Applicants' arguments have been considered; however they are insufficient to overcome the prior art rejection. Firstly, applicants have not distinguished the disclosed "domains" from "particles", as they pertain to the instant invention. Neither evidence nor rationale has been presented to support an argument that the disclosed domains differ from particles. Furthermore, the instant claims do not specify that the polyurea filler is in the form of particles; the polyurea filler is simply described in terms of a "particle size". Secondly, applicants' argument that the phrase, "several hundred Angstroms", does not disclose the claimed particle size with sufficient specificity is not well taken. The upper value of the most narrowly claimed particle size range is 20 μm , and this value corresponds to 200,000 Å; therefore, particle sizes defined by the argued phrase clearly fall within the claimed range.

4. Claims 1-4 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. ('063).

Yamamoto et al. disclose the addition of thermoplastic polymer fibers to rubbers, so as to obtain rubber compositions having excellent strength and modulus. Patentees disclose fiber sizes that meet those of applicants' claimed particle sizes and further disclose that the short fiber may be polyurea, though other suitable species are disclosed, as well. See abstract; column 2, lines 35+; column 3, lines 32+; and column 4, lines 1-6. In view of the disclosure that polyurea is a

suitable thermoplastic polymer for use in the invention of Yamamoto et al., the position is taken that it would have been obvious to select polyurea from the listing of disclosed polymers as the material for the fibers and to incorporate these polyurea fibers into a rubber composition, so as to obtain a rubber composition having the aforementioned improved characteristics. Applicants' claim language does not differentiate the disclosed short fibers from the claimed polyurea filler. Furthermore, since polyureas are derived from the stoichiometric reaction of polyisocyanates and polyamines, applicants' claim amendments are not considered to distinguish the claimed polyureas from the disclosed polyureas.

5. Applicants' argument that the rejection is moot in view of the inclusion of the subject matter of claim 7 into the independent claims, because claim 7 was not rejected in view of Yamamoto et al. is not well taken. Previously, claim 7 was dependent on claim 12, and it was the subject matter within claim 12 that was not rejected in view of Yamamoto et al.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 1711

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

R. Sergent
January 25, 2004



RABON SERGENT
PRIMARY EXAMINER